

The results of a study conducted by the EPA on the emissions produced by biodiesel show that except for nitrogen oxides (NOx), regulated and non regulated emissions from both B100 (100% biodiesel) and B20 (20% biodiesel) are significantly lower than for conventional petroleum based diesel.

**Section: BIOFUELS**  
**Average Biodiesel (B100 and B20) Emissions Compared to Conventional Diesel**

Emission Type	B100	B20
	Emissions in relation to conventional diesel	
<b>Regulated</b>		
Total Unburned Hydrocarbons	-67%	-20%
Carbon Monoxide	-48%	-12%
Particulate Matter	-47%	-12%
NOx	+10%	+2% to -2%
<b>Non-Regulated</b>		
Sulfates	-100%	-20% <sup>a</sup>
PAH (Polycyclic Aromatic Hydrocarbons) <sup>b</sup>	-80%	-13%
nPAH (nitrated PAH's) <sup>b</sup>	-90%	-50% <sup>c</sup>
Ozone potential of speciated HC	-50%	-10%

**Source:**

National Biodiesel Board, Biodiesel Fact Sheets, Emissions  
<http://www.biodiesel.org/resources/fuelfactsheets/>  
[http://www.biodiesel.org/pdf\\_files/fuelfactsheets/emissions.pdf](http://www.biodiesel.org/pdf_files/fuelfactsheets/emissions.pdf)

**Note:** Testing was performed by the EPA. The full report titled "A comprehensive Analysis of Biodiesel Impacts on Exhaust Emissions" can be found at:

[www.epa.gov/otaq/models/biodsl.htm](http://www.epa.gov/otaq/models/biodsl.htm)  
<http://www.epa.gov/otaq/models/analysis/biodsl/p02001.pdf>

B100 is 100% Biodiesel while B20 is a blend of 20% Biodiesel and 80% conventional petroleum based diesel

<sup>a</sup> Estimated from B100 result.

<sup>b</sup> Average reduction across all compounds measured.

<sup>c</sup> 2-nitroflourine results were within test method variability.